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| Chapter 15 | Pressure, buoyancy, fluid flow and viscosity. |
| Chapter 19 | Charge, Coulomb's Law, electric field and conductors. |
| Chapter 20 | Electric potential, capacitance, dielectrics and applications. |
| Chapter 21 | Electric current, resistance, Ohm's Law, DC, AC and electrical energy. Resistors in series and parallel, Kirchoff's Laws and hazards. |
| Chapter 22 | Magnetic Fields, magnetic forces and current-carrying conductors. |
| Chapter 23 | Induction, Lenz's Law, generators and transformers. |
| Chapter 24 | Reactance, RLC circuits and resonance. |
| Chapter 32 | Nuclear energy, radioactivity, decay and applications. |

TRANSFERABILITY: It is a University of Alberta Transfer Course

** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

GRADING CRITERIA:

GRANDE PRAIRIE REGIONAL COLLEGE

GRADING CONVERSION CHART

| Alpha Grade | 4-point Equivalent | Percentage Guidelines | Designation |
|----------------------|---------------------------|------------------------------|--|
| A⁺ | 4.0 | 90 – 100 | EXCELLENT |
| A | 4.0 | 85 – 89 | |
| A⁻ | 3.7 | 80 – 84 | FIRST CLASS STANDING |
| B⁺ | 3.3 | 77 – 79 | |
| B | 3.0 | 73 – 76 | GOOD |
| B⁻ | 2.7 | 70 – 72 | |
| C⁺ | 2.3 | 67 – 69 | SATISFACTORY |
| C | 2.0 | 63 – 66 | |
| C⁻ | 1.7 | 60 – 62 | |
| D⁺ | 1.3 | 55 – 59 | MINIMAL PASS |
| D | 1.0 | 50 – 54 | |
| F | 0.0 | 0 – 49 | FAIL |
| WF | 0.0 | 0 | FAIL, withdrawal after the deadline |

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|---------------------|-----------------------------|------------|---------------------|
| EVALUATIONS: | Assignments | 15% | |
| | Laboratories | 20% | |
| | Mid-Term Examination | 20% | (Feb. 15/12) |
| | Final Examination | 45% | (TBA) |

STATEMENT ON PLAGIARISM AND CHEATING:

Refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at www.gprc.ab.ca/about/administration/policies/**

****Note:** all Academic and Administrative policies are available on the same page.

COURSE SCHEDULE/TENTATIVE TIMELINE:

| | | | |
|-------------------|------------|---------------------------|-------------|
| Lecture | M W | 10:00 - 10:50 a.m. | J202 |
| Laboratory | R | 2:30 - 5:20 p.m. | J103 |

LABORATORY COMPONENT

| Lab # | Content | Week of |
|----------------|-----------------------------------|----------------|
| 11 | Fluid Properties | Jan. 9 |
| 12 | Terminal Velocity | Jan. 16 |
| 13 | Coulomb's Law | Jan. 23 |
| handout | Inverse Square Law | Jan. 30 |
| 14 | Mapping of Electric Fields | Feb. 6 |
| 15 | Capacitance | Feb. 27 |
| 16 | Simple Electric Currents | Mar. 5 |
| 17 | e/m for Electrons | Mar. 12 |
| 18 | Magnetic Fields | Mar. 19 |
| handout | Balmer Series | Mar. 26 |